One year and some months,	sixteen times.
Two years,	six "
Three "	five "
Four "	twice.
Five "	"
Five to ten years,	nine times.
Ten to fifteen "	three "

It is seen then that thirty-one patients died during the five years following the death of the first case. There is nothing surprising in the long incubation noted in the long cases, as they belong to incomplete observations, and even in heredity the same thing is noticed.

There is in both hereditary and acquired cancer a longer or shorter period of incubation, which Prosper Lucas calls the "occultation of morbid phenomena." The latent period is often shorter in the acquired than in the hereditary cases. In one-third of the former it does not exceed one year.

The contagion is undoubtedly slight, or, as Velpeau puts it, "it is not easy," it requires a receptive condition, which fortunately is not often found.

SAMUEL LLOYD.

IVERSON ON PERI-UTERINE SUPPURATION.

PROF. A. IVERSON, of Copenhagen,[1] has contributed an interesting study of this subject, together with a tabulation of cases, which is worthy of reproduction here. He says that whenever the uterus, tubes and ovaries are inflamed that portion of the peritonæum surrounding them is also affected. It was formerly necessary, in order to obtain an explanation of pelvic inflammations in women, to make an exploratory laparotomy, but the increased knowledge obtained in consequence of these salpingo-oöphorectomies of the pathological conditions has enabled observers at the present time to make more accurate diagnoses than formerly. It is still a question how the disease

[1] Deutsche Medicinische Wochenschrift, October 6, 1892; October 13, 1892; October 20, 1892; October 27, 1892, and November 3, 1892.

gains entrance to the peritoneal cavity, whether through the walls of the tube, through the lymphatics, or directly through the ostium abdominale, and whether the peritoneal inflammations are caused by micro-organisms or by mixed infections. There have been instances where during a laparotomy the so-called pus of a dilated and diseased tube has escaped into the peritoneal cavity without causing any inflammatory trouble, and it is now recognized that this pus must be sterile. The cases utilized in the preparation of this paper show that fourteen of the patients had borne children, eight had never been confined, twelve had never had any miscarriages and four had had one or more. In the cases where the pelvic trouble was present in women who had borne children, the interval elapsing between the confinement and the origin of the disease was too long for this to be considered as the starting point of the disease, particularly when the confinement had been perfectly normal. Very few of these patients gave a history of any premonitory symptoms before the full establishment of the pelvic lesion. The disease in fifteen cases originated without previous pelvic distress.

In eighteen cases menstruation had always been regular, and in all of them the lesion appeared simultaneously with a menstrual period, the hæmorrhage being either increased or completely arrested.

In pelvi-peritonitis we find first, exudation, and second, adhesion.

Although it may be assumed that salpingitis is very frequently the starting point of the disease, it should not be taken for granted that the peritonæum was perfectly normal prior to the violent appearance of the disease. Small cysts are often found in laparotomies bound down by adhesions, or buried by them in Douglas' cul-de-sac. Their contents may be either serous or purulent; clinically, their contents look like pus, and in other cases the adhesions are covered with a fibrinous yellowish layer, closely resembling pus; at any rate, these adhesions can only be the result of some inflammatory trouble which has produced a limited peritonitis. In all probability the exudation is large from the very beginning, and it is

quickly limited by adhesions, so that the whole peritonæum is very rarely attacked. These adhesions may become so thick in time that they completely disguise all suppuration, and give the impression of a solid mass, when in the earlier stages fluctuation could be readily determined. As a rule the exudation is found filling Douglas' cul-de-sac more or less completely, or it may fill the whole pelvis, displacing the different organs in various directions, and at times it even extends upward into the abdominal cavity, often as high as the umbilicus. This may break a path through the subperitoneal connective tissue and other organs, and sometimes healing occurs spontaneously, because the pus escapes through organs which allow of its evacuation without dangerous consequences. Dolbet has collected thirty-eight cases where this occurred, and the rectum has been the most frequent way of escape. Frequently this evacuation is but partial, and the abscess is not usually much diminished in size. The dangers when the evacuation takes place into the peritonæum and bladder are well known. The older and harder these exudations are the more difficult it is to overcome them. If the connective tissue of the pelvis is also affected, and there is also secondary development of bone disease, the result must be fatal either by hectic or by amyloid changes in the kidney. The neuralgias are a natural result of the retractions of the scar tissue.

The disease usually begins very abruptly, like an acute general peritonitis. There is marked fever, considerable sensitiveness in the abdomen, permitting neither manipulation nor movement, and vomiting leads to the suspicion of some serious condition. Rectal and vaginal examination aid in the diagnosis, but those regions may be so sensitive that examination becomes impossible. Finally, the local peritonitis becomes evident and a fullness of the pelvis may be readily determined. The uterus is pushed forward so that the collum uteri is driven toward the symphysis and the rectum is compressed, and Douglas' pouch is pushed downward and completely filled; its surface being smooth, the consistency differing according to the stage

in which the investigation is made; sometimes fluctuation is present, but sometimes only a firm, elastic tumor can be felt.

In nineteen out of the twenty-two cases reported the greater part of Douglas' pouch was filled by a tumor, and this could be made out above the symphysis in eighteen, while in eight it extended to the umbilicus. The tumor is usually fixed, and seems closely attached to the pelvis. The fever may entirely disappear, although the temperature may indicate a typical pus curve. The pains may become intense, radiating down the legs, usually along the sciatic nerve. Bladder symptoms, which were troublesome at first, rapidly disappear, but the rectal symptoms continue. Usually a considerable swelling of the mucous membrane of the rectum can be made out; and this is a valuable symptom, as it may indicate a tendency to perforation into the rectum. There may also be a slight hæmorrhage from the uterus.

This condition might be confounded with a retro-uterine hæmatoma, a single or double pyosalpinx, or a suppurating ovarian or dermoid cyst. It is now admitted that these hæmatoceles are caused by the rupture of a tubal pregnancy, or by a chronic salpingitis, producing hæmorrhages, or by a hæmorrhagic peri-salpingitis and pelvi-peritonitis. The rupture of varices in the ligaments is of too rare occurrence to be taken into consideration.

Pyosalpinx is generally doubled-sided, and the dilatation and morbid changes in the tubes usually can be made out in Douglas' pouch, but the tumors seldom attain any considerable size unless the pyosalpinx is accompanied by a peri-salpingitis or suppurative pelvi-peritonitis. A single incision and drainage is rarely successful, but owing to the firm septa that form, counter-openings are usually necessary.

The bladder requires attention. Retroflexion of the uterus is often accompanied by retention of urine, and the bladder can then be made out above the symphysis.

The most important point is to ascertain whether pus is or is not present. In the case of abscess in Douglas' pouch it should be

evacuated. Vaginal evacuation has the disadvantage that the muscles of the vagina are apt to decrease the size of the aperture and push out the drainage tube, and antiseptics cannot be applied very thoroughly. Pean's method of removing the uterus by morcellement is recommended. The pus in favorable cases is not seen until the extirpation of the uterus is complete, when the different suppurating sacs are opened with the finger. In case they are opened before the uterus is removed, they should be evacuated. The cavity should be thoroughly washed out and packed with iodoform gauze.

The operation is difficult; it is not easy to ascertain the exact position of the uterus in relation to the large tumor, and the direction of the dissection depends upon this point: it is difficult in stiff and solid peri-uterine infiltrations to ascertain the lateral borders of the uterus and the proper place for the location of the forceps on the ligaments. The uterine sound does not aid us here for, owing to the contractions and the flexions, it cannot be introduced. There is always a parenchymatous hæmorrhage during this dissection from the lateral ligaments, but it is insignificant because the vessels in these chronic suppurating processes usually become atrophic and their size decreases. The after-treatment is very simple: The forceps are removed at the end of forty-eight hours. If the temperature has fallen and rises again, retention of pus should be suspected and the cavity should be very carefully examined. The wound usually closes very rapidly. The objection has been raised that this operation sacrifices a normal organ, but the uterus in these conditions is never normal, chronic endometritis and metritis (usually the starting point of the disease) always exist, and never allow the organ to exercise its physiological function, and when the disease in the adnexa has reached an operative stage there can be but little doubt but that the individual is sterile. The uterus then is of no consequence and its removal is justified. If the adnexa alone are involved in the disease, laparotomy would be the preferable operation.

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